

WHAT IS CLAIMED IS:

1. A way of and means for realizing synthetic knowledge processes in devices for useful applications, while avoiding the shortcomings and drawbacks of prior art methodologies.

2. A type of digital computer that eliminates the need for computer software and directly enables digital logic to embody conscious thought, and wherein the digital computer truly understands and uses language, while eliminating the complexities associated with computer software, firmware, and hardware design.

3. A thinking machine that operates according to a universal grammar and a theory of operation that enables physical matter and digital electronics to understand the pronoun *I*, in connection with any other meaningful expressions of language, while perceiving the world through senses and motors.

4. A method of and apparatus for realizing a plurality of thinking machines in a global infrastructure referred to as a “knowledge continuum.”

5. A synthetic version of human intelligence, which emulates the mind’s quantum momentary action according to a universal grammar that describes how human beings think and learn.

6. A knowledge network” that operates on “programmable bytes” and the mind’s “epistemic moments” (quantum states of transformation), upon which knowledge processor technology acts to create synthetic thought and perception.

7. The knowledge network of claim 6, wherein the programmable byte is a reinterpretation of the binary sequence processed by digital logic such that any digital system, microprocessor, or application software can manipulate the mind’s thoughts in digital electronics.

8. A universal grammatical bridge between the user’s internal thoughts, as expressed in arbitrary language, and digital logic’s binary operations by conforming to a knowledge network that emulates the mind’s cognitive action.

9. A way of and mean embodying “prominent thoughts” (epistemic moments of the mind’s innate action), in digital electronics as the mind’s quantum semantic or “deep” structures, are constructed into a knowledge network that uses active and static memory to perform the mind’s intellectual processes while thinking of new thoughts. The knowledge network is embodied in any technological medium, including digital circuits that think and learn autonomously through natural language, rather than mimicking a programmer’s intelligence.

10. A knowledge processor that understands language by applying conceptual blending techniques, such as a metaphor, to ordinary spoken language. The objective includes that provision of thinking machines that create thoughtful and emotive expressions of language and think and learn along with us as autonomous synthetic beings.

11. Digital electronics, microprocessors, and software that unencumber the user and the programmer from software languages and hardware protocols to enable machines to understand language the way the mind does.

12. A system and method for eliminating computing deficiencies which have always existed that led the computer industry into developing "source code" that must be translated into a machine's binary languages, rather than simply translating arbitrary knowledge directly into a microchip that operates naturally according to the mind's "epistemic transformations" of language.

13. A uniform epistemic process to binary logic such that any thought can be innately translated into a microchip's logic.

14 A knowledge processor that is the successor to the computer and the Internet, which advances the art into truly thinking machines.

15. Knowledge networks that can be incorporated into any user environment, including communication systems, engineered systems, biological systems, and business enterprises.

16. A "Knowledge Development Environment" (KDE) that allows a user to program intelligent machines that operate according to the knowledge processing premises defined in the present disclosure.

17. The KDE of claim 16, which includes programming features for the knowledge processor's knowledge network, programmable bytes, intellectual faculties and learning functions, and a modified system theory that integrates intelligent machines into global computing, communications, and enterprise infrastructure.

18. A system and method which allow a developer to manipulate digital bit and byte sequences linguistically according to a universal grammar defining the mind's innate action.

19. A programming interface and methodology for integrating a "society" of thinking machines that interact with users in a "knowledge continuum" linking spatiotemporal, linguistic, technological, and cultural disparities.

20. A system and method to implement digital logic whereby it is unnecessary to use programming languages, except for that required by the KDE, in order for intelligent machines that communicate with us in arbitrary language to implement knowledge directly in digital gates or software.

21. A fundamental processing unit of the KP paradigm—the “programmable byte.”

22. A system and method for enabling digital memory, microprocessors, and software to operate according to the mind’s innate action by encoding any application language’s linguistic properties into the KP’s flexibly programmed digital byte, whereby eliminating the need for compilers and software languages, and processing the elements of language directly in the registers of a microprocessor’s central processing unit (CPU).

23. A system and method for encoding the programmable byte with linguistic properties, communications protocols, and knowledge network features that allow the KP’s “running processes” to operate as thoughtful faculties of mind embedded in any global computing or engineered system.

24. A linguistic structure and methodology that is used to formulate the knowledge processor’s intelligence and to provide the knowledge network’s syntactical and semantic “webbing” that is executed by the action of a CPU, software, or digital gate in order to implement the mind’s action synthetically without the brain’s physiology.

25. A system and method for accomplishing the retention, translation, and transmission of the KP’s widely varied use of language in a manner that parallels the brain’s neurological network, but in a “synthetic consciousness” made from a digital circuit or software.

26. A KDE’s “Universal Programming Language” (UPL) and its robust command set, which enable the developer and the KP to create and manipulate the knowledge network’s intelligence.

27. UPL commands that are described in terms of microprocessor and software instruction syntax and operation so that the developer can apply the commands while building the knowledge network’s intellectual faculties, or “scripts”; thereby offering a manner in which the UPL commands operate on application and platform languages directly corresponds to a CPU’s operation on machine bytes in the “Host processor’s” registers, but according to the universal grammar’s depiction of language, such commands being provided such that they can be compiled, interpreted, or translated by the KDE into Host processor CPU architecture instructions when the knowledge project is installed on any enabling computer platform.

28. The method and apparatus of the earlier objectives in the form of an androidal "machine-being" that understands language from an ordinary computer.

29. A knowledge processor that is distinct because the KP actually thinks about and understands the language it uses in the application, while the KP creates new knowledge and converses with the user.

30. A "Rg knowledge continuum" of global system-theoretic structure derived from both linguistics and conventional system theory to enable the KDE and the knowledge processing paradigm to develop and implement any technology or system.

31. The Rg continuum of claim 30, which defines five basic continuum structures through which KP and conventional technologies can interact without being constrained by computing protocols, the five levels of the continuum being enabled, along with the continuum's "Rg modules," as developer or user workspaces that give physical, intellectual, and metaphysical space and structure to any human endeavor assisted by machine intelligence according to knowledge processing premises; and the Rg continuum allowing the expansion of human knowledge and technology, as embodied in human beings and now machines, throughout a global infrastructure that enhances the Internet with the intelligent enterprise.

32. A commercialization method for global infrastructure that communicates in natural language according to knowledge processing premises.

33. A universal grammar and methodology by which knowledge is expressed and realized in physical media according to its ultimately real form.

34. An epistemic microprocessor architecture that operates on programmable bytes and knowledge network structures, thereby permitting digital electronics to operate as an intelligent machine.

35. Symbol kits that perform as translation tables for the universal grammatical translation of external analog and digital signals into each other and into Host machine data structures.

36. Knowledge structures that encapsulate knowledge as prominent thoughts and semantic clusters embedded in network webbing that includes epistemic node triplet, prominent thought, semantic cluster arrays, data set, parent node gateway, module function, spelling mode array, the semantic category gateway, and node structure sub-gateway

37. Data conversions that allow digital and analog machines to interact with each other by the Host processor's conversion of any external knowledge into the structures of the universal grammar and the knowledge processing methodology.

5 38. Global system model that permits machines to communicate intelligently.

39. Software engineering structures and methods by which any software, hardware, or network protocol can be translated into any other.

10 40. Database technology that performs as a "thinking database," whereby the traditional structures defined by database theory, such as classes, fields, data structures, records, primary and secondary keys, tables, table relationships, queries, and reports, are fundamentally expressed through the KP paradigm's prominent thoughts and epistemic network structures.

15 41. Computer graphics and symbolic recognition systems whereby the intelligent knowledge processor understands and recognizes images cognitively and in relation to expressions of natural language.

20 42. Digital system design protocols and methodology by which digital logic is understood and designed by the knowledge processor with or without the developer's participation.

43. Simulation and control systems for use with physical systems such that the knowledge processor understands the machine's physical environment through natural language and senses and motors.

25 44. Communication systems that operate by comprehending and translating the arbitrary language embedded in a carrier signal.

30 45. A natural language translation methodology and apparatus by which the knowledge processor translates language according to a bidirectional, semantically perfect translation method that allows beings to understand and agree upon the epistemic moments of linguistic structure embedded in any expression.

35 46. Knowledge and learning systems that allow the user to examine the epistemic moments and parse trees generated by a knowledge processor for the purpose of learning how the machine comprehended or imagined linguistic structure in the universal grammar.

47. A method for biological sequence analysis by which the molecular sequences are embedded in and examined and translated by the knowledge network as epistemic moments and network

webbing.

48. An androidal machine being that operates in the split form of existence in order to conceive language and perceive the physical and metaphysical world in connection with the pronoun *I*.

49. A model for human consciousness by which the human brain's anatomy and physiology can be analyzed in terms of the universal grammar's depiction of linguistic moments of thought.

50. Apparatus for realizing a synthetic knowledge processor, using analog and digital technology, wherein linguistically programmable digital bytes are created and altered in a microprocessor's and computer program's structure and operation, according to the operation of an epistemological knowledge network, which retains and transforms knowledge and knowledge processes by configuring the programmable bytes into epistemic moments, wherein epistemic moments are embedded in the semantic webbing of the network in semantic clusters and prominent thoughts that emulate the mind's quantum momentary action and retention of knowledge, and wherein the prominent thoughts are embedded in semantic and syntactical network webbing formulated from network node and grammatical form structures which enable the apparatus to conceive, translate, and communicate higher-level expressions of arbitrary language while using the prominent thoughts as instances of a language's meaning.